

WHAT IS CLAIMED IS:

1. An apparatus where an operating system read out from a selected device of a multiplexed plurality of devices is started up for starting up the system, comprising:

a storing unit which stores environment data for setting a boot from said plurality of devices,

a boot control unit which decides on a boot device based on the setting of said environment data and starting up said operating system stored in said boot device, and

a control unit which controls multiplexing of said plurality of devices,

said control unit changing the setting of said environment data and controlling switching to another device when an abnormality is detected in said boot device.

2. An apparatus as set forth in claim 1, wherein said environment data includes:

first variable data including device setting data designating boot candidates for said plurality of devices,

second variable data including index data designating a boot device based on said device setting data, and

third variable data in which a binary value indicating whether said multiplexing is valid or not is set.

3. An apparatus as set forth in claim 2, wherein said boot control unit clears said index data to an initial value at the time of powering up the system and selects said device initially set in said device setting data for a boot.

4. An apparatus as set forth in claim 2, wherein said boot control unit selects a boot device designated by said index data when "valid" is set in said third variable data and selects the device initially set in

said device setting data for a boot when "not" is set.

5. An apparatus as set forth in claim 4, wherein said boot control means updates an index in said index data when "valid" is set in said third variable data.

6. An apparatus as set forth in claim 5, wherein said boot control unit selects a boot device set in said environment data and reads in and starts up said operating system stored in said boot device.

7. An apparatus as set forth in claim 2, wherein said control unit refers to the setting in said first variable data and confirms that said boot device of a slave system has been used for startup when "valid" is set in said third variable data and said index data is not an initial value.

8. An apparatus as set forth in claim 7, wherein said control unit issues a warning message showing that an abnormality has occurred in said device of a master system when recognizing that said boot device of said slave system has been used for startup.

9. An apparatus as set forth in claim 7, wherein said control unit clears said second variable data to said initial value when there is said third variable data and said second variable data is not "0".

10. An apparatus as set forth in claim 2, wherein said control unit sets "no" in said third variable data when the third variable data is present in said storing unit and said plurality of devices are not set for redundant operation.

11. An apparatus as set forth in claim 2, wherein said control unit cuts off a boot device when detecting an abnormality in said boot device without regard as to if there is said third variable data in said storing unit and rewrites setting data of the devices serving as said boot candidates of said first variable data.

12. An apparatus as set forth in claim 2, wherein said storing unit is a nonvolatile memory and wherein said boot control unit and said control means rewrite the

settings in said second variable data and said third variable data stored in the storing unit.

13. An apparatus as set forth in claim 1, wherein said boot control unit executes booting by boot firmware stored in said storing unit.

14. An apparatus as set forth in claim 1, wherein said control unit reads in system software stored in said boot devices for controlling multiplexing.

15. An apparatus as set forth in claim 3, wherein said boot control unit selects a boot device set in said environment data and reads in and starts up said operating system stored in said boot device.

16. An apparatus as set forth in claim 4, wherein said boot control unit selects a boot device set in said environment data and reads in and starts up said operating system stored in said boot device.

17. A method for starting up data processing system in which an operating system read out from a selected device of a multiplexed plurality of devices is started up for starting up the system, comprising the steps of:

storing environment data for setting a boot from said plurality of devices;

deciding on a boot device based on the setting of said environment data and executing a boot control which starts up said operating system stored in said boot device;

controlling multiplexing of said plurality of devices; and

changing the setting of said environment data and switching to another device when an abnormality is detected in said boot device.

18. A recording medium storing a program which starts up an operating system read out from a selected device of a multiplexed plurality of devices and starts up a data processing system, the program comprising the steps of:

storing environment data for setting a

boot from said plurality of devices;

deciding on a boot device based on the setting of said environment data and executing a boot control which starts up said operating system stored in said boot device;

controlling multiplexing of said plurality of devices; and

changing the setting of said environment data and switching to another device when an abnormality is detected in said boot device.